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NPS Soil Resources Inventory Update

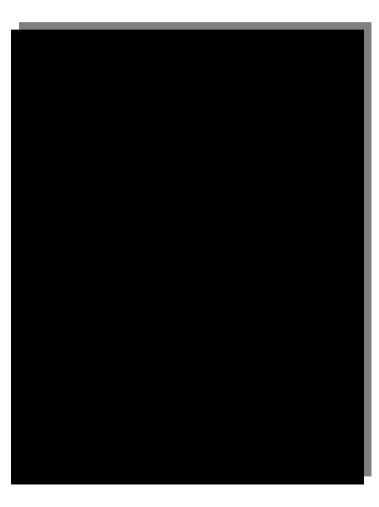
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NPS Soil Resources Management



"The Service will actively seek to understand and preserve the soil resources of parks, and to prevent, to the extent possible, the unnatural erosion, physical removal, or contamination of the soil, or its contamination of other resources".

Excerpts from, NPS Management Policies 2001, Part 4.8.2.4 - Soil Resource Management

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NPS Soil Resource Management Issues

General / Resource Management Plans

Interpretation/Information and Education

Park Development and Maintenance

Cultural Resources

Disturbed Lands Program

Restoration Projects

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NPS Soil Resource Management Issues





Fire Management Plans/Fuel Reduction Program

Threatened and Endangered Species

Wetland Identification and Management

Exotic/Invasive Plants

Vital Signs Monitoring

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National Level

Park Acres 84.5 Million

Number of Parks 270

Acres mapped thru FY07 24.5 Million (29%)
Parks mapped thru FY07 140 (52%)

Alaska Acres 54 Million (64%) Alaska Parks 16 (6%)

Mapped = data that can be harvested from SDM

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NCSS Northeast Region Status

There are 955,988 acres of NPS Lands in the NE region (1.1% of total NPS acres). That acreage comprises 53 parks or 19.6% of the total number of parks in the country.

Through FY07 26 parks in the NE have "harvestable" soils data. Those 26 parks comprise 180,064 acres (19% of NPS acreage in the NE region) and 49% of the total park number in the NE.

NPS counts parks not acres

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NCSS Northeast Region Status

Interagency Agreement is currently in place with NRCS addressing 3 parks in WV, covering 88,000 acres (Bluestone National Scenic River, Gauley River National Recreation Area, New River Gorge National River)

These parks have been set up as new non-MLRA soil survey areas and will be available on Web Soil Survey

Have interest in setting up Shenandoah National Park as a new non-MLRA soil survey area, as it currently resides within 8 different soil survey areas, never mapped to meet NPS needs, and not available on Web Soil Survey

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Opportunities for NPS Partnerships

Interested in participating with MAPCOAST to pursue mapping of subaqueous soils in many of the NPS units in the NE Region

NPS has been working with NCSS partners in other projects on our coastal parks to meet management needs

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Subaqueous Soils on Wind Tidal Flats at Padre Island National Seashore, Texas

Set up 2 new soil series (Satatton, Tatton) and one new ecological site description (Wind Tidal Flat - R150BY716TX) to support management needs and ecological significance to the Park that would not be addressed as a "Miscellaneous Area"

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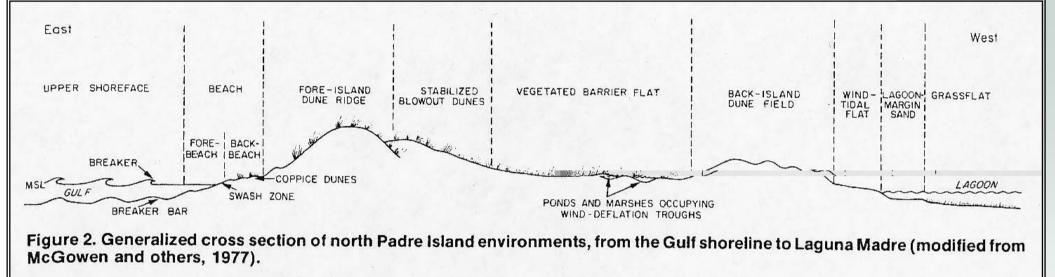


Beaches were investigated and 4 different map units were developed based upon different parent materials (big shell, little shell, mineral, etc.) as well as potential management issues such as trafficability.



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A landform/soil classification/vegetative/hydrologic classification and characteristics genetic key was developed to not only to familiarize the soil scientists with the soils as they occur across the landscape, but will also be available to all users to help them visualize how these things are changing across a dynamic landscape.

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Climate, Landscape, Parent Material, and Vegetation
Padre Island National Seashore

Map symbol and Soil Name	 Slope 		 MAP 	MAAT	Frost Free Days	 Landscape 	 Landform 	 Parent Material	Ecological Site	 Characteristic Native Vegetatatron	Compos: Trores cradi	
91:	pct	ft	in	F		i –	i		i		i	i
Mustang	0-1 	0-5	25-35 	71-73 	310-350	barrier island	barrier island	sandy eolian and storm washover sediments of Holocene age	LOW COASTAL SAND PE 31-44 R150BY650TX 		 	
				i i		ì	i	I de la company	i	bushy bluestem	i	5
				i i		ì	i	ì		gulfdune paspalum		10
	1			i i		i	i	i		marshhay cordgrass		30
	i		i	i i		i	i	ì		other perennial	i	10
	i		i	i i		i	i	i		forbs	i	i
	i		i	i i		i	i	i		other perennial	i	i 5
	i		i	i i		ì	i	i		grasses	i	i
	i		i	i i		i	i	i		scribner's panicum	i	5
	i		i	i i		i .	i	i		seacoast bluestem	i	5
	i		i	i i		ì	i	i	i	seashore dropseed	i	5
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	pct	ft	in	F		T .	1	Ī	1	1	pct	pct
Padre	0-2	3-10	25-35	71-73	310-350	barrier island	low dune on	sandy eolian and	COASTAL SAND PE 31-44	I	I	I
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	I		I	1 1		I	1	Holocene age	I	I	I	I
	I		I	1 1		1	1	I	1	broomsedge bluestem	I	1 5
	I		I .	1 1		1	1	I	I	brownseed paspalum	I	5
	I		I	1		I	1	I	I	false indigo	I	5
	I		I	1 1		L	1	I		gulfdune paspalum	L	10
	I		L	1 1		1	1	I		marshhay cordgrass	1	5
	I		I	1 1		1	1	I		other perennial	I	15
	I		I	1		1	1	I		forbs	1	I
	1		I	1		I	1	I	I	other perennial	I	5
	I		I .	1 1		1	I	I		grasses	I	I
	I		I	I I			1	I		partridge pea	I	5
	1		I .	1		I .	1	I		scribner's panicum	I	5
	l l		1	1 1		I	I	I	I	seacoast bluestem	I.	40

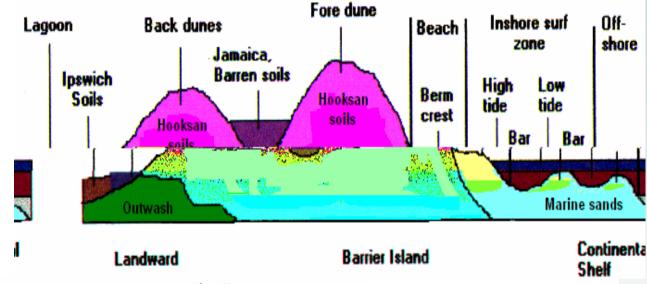
A corresponding report was also developed from NASIS data to show these geomorphic and ecological relationships.

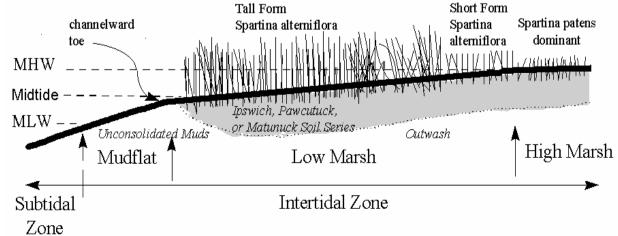
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NPS Soil Resource Inventory Staff



Judy Daniels - Data Manager

Branon Barrett – GIS Specialist

Troy Kashon – GIS Specialist

Sue Southard – NRCS/NPS Liaison

Part of liaison role is to help parks understand soils....

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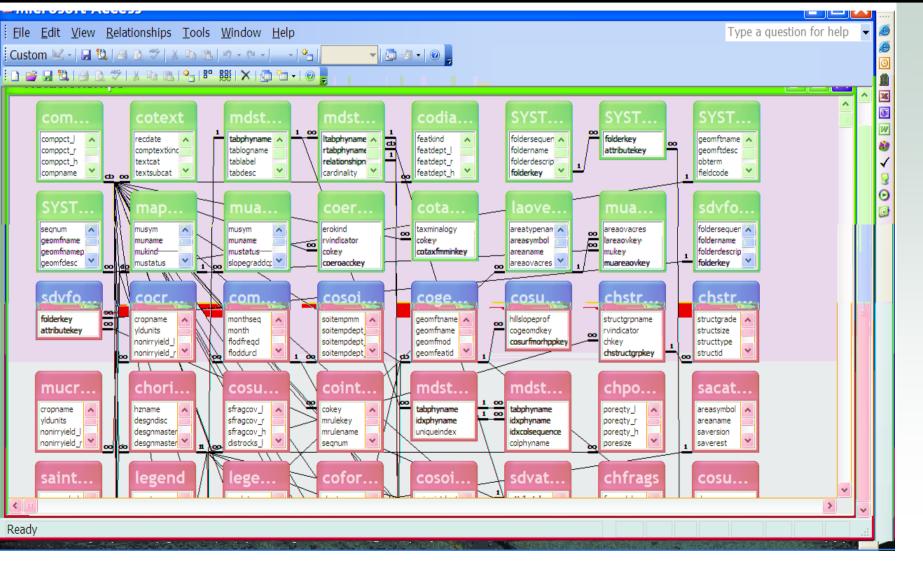
Our Goal.....

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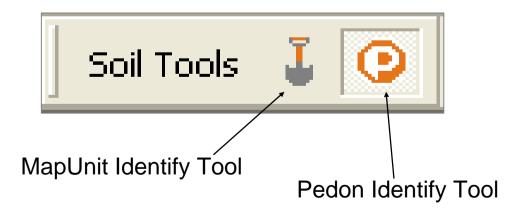
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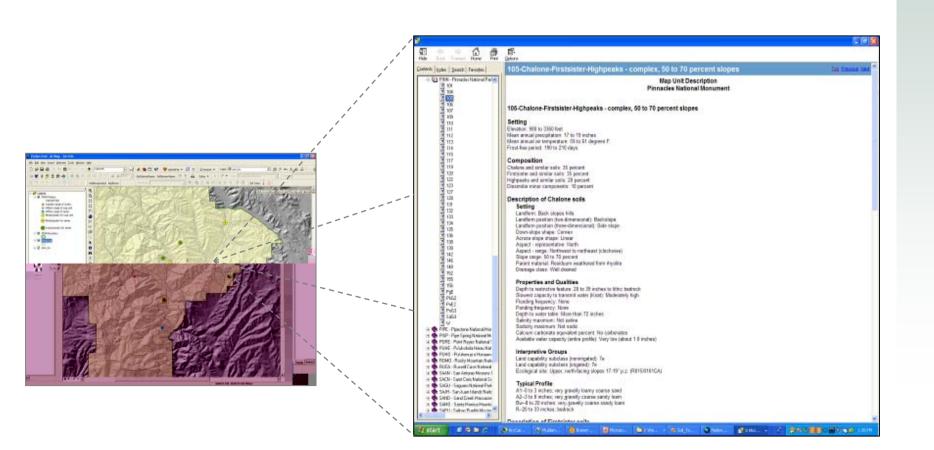
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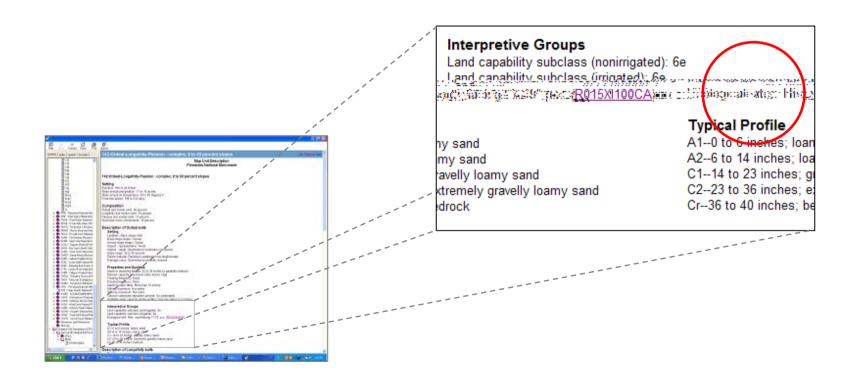
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Photo Documenting Map Units

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Use of Geospatial Tools and Map Units

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NATIONAL PARK SERVICE

Product Development



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What's Cool About Our Park Soils?

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Why is the pedon point data important and how is it useful?

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It allows users access to the pedon data collected in the process of a soil survey on park lands.

It also educates users to the different types of pedon data that are collected in the process of a soil survey on park lands.

Used by other disciplines, such as archeologists, ecologists

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AMERICA

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What's Cool About Our Park Soils?

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Soil Monoliths

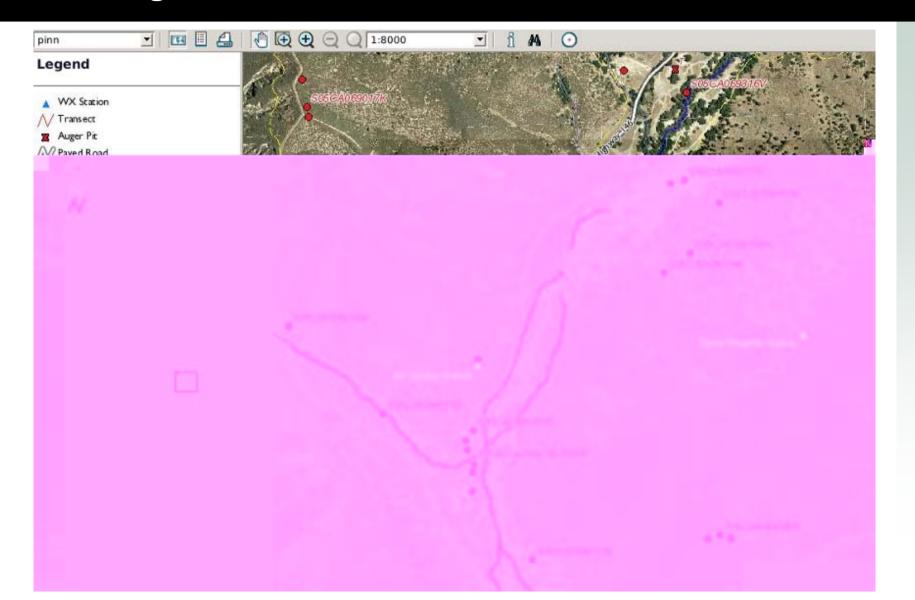


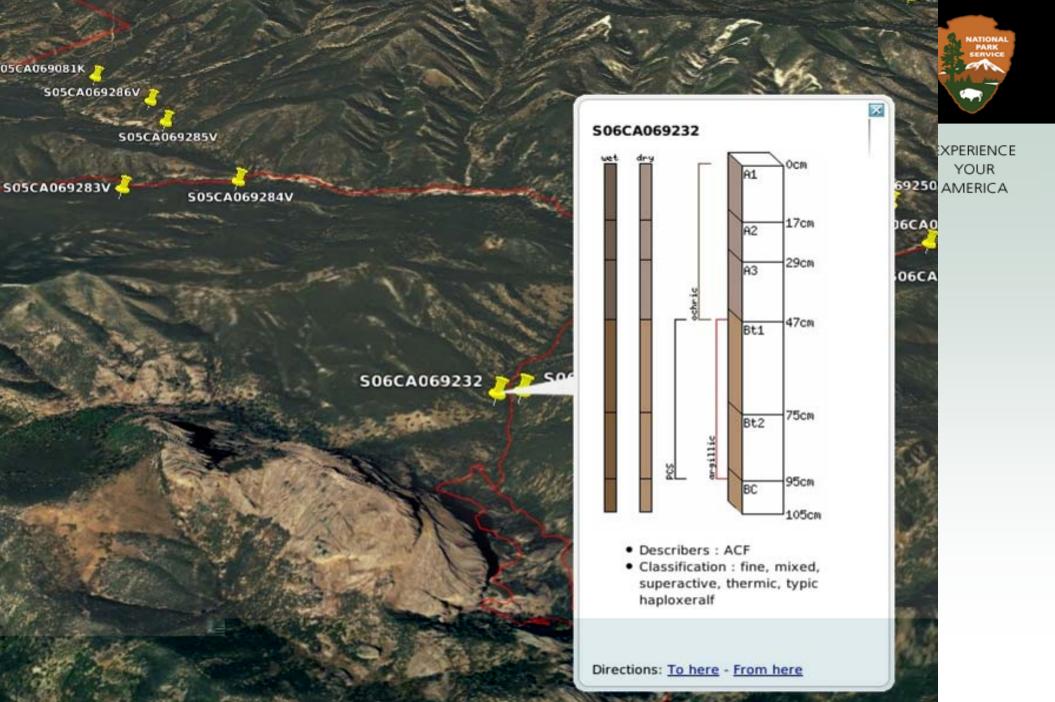




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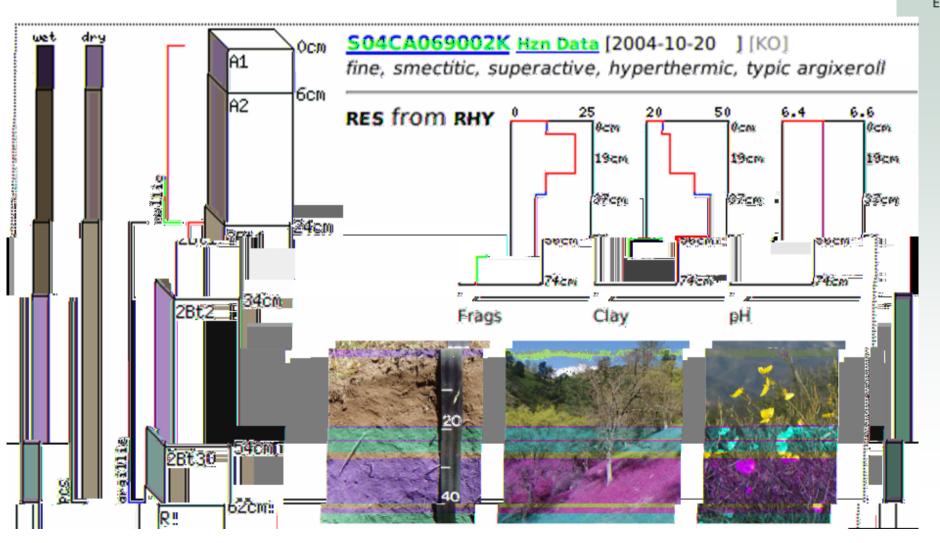






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How does NPS SRI Goals fit in with current Soil Survey Division Priorities?

- 1. Promoting TSS
- 2. Benchmark landscapes
- 3. ESDs and state and transition models

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Any questions?

If no questions, here are historic photos from Rhode Island

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